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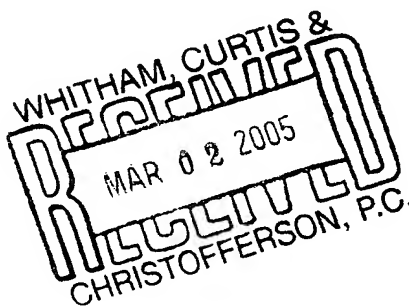
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VIRGINIA COMMONWEALTH UNIVERSITY et al

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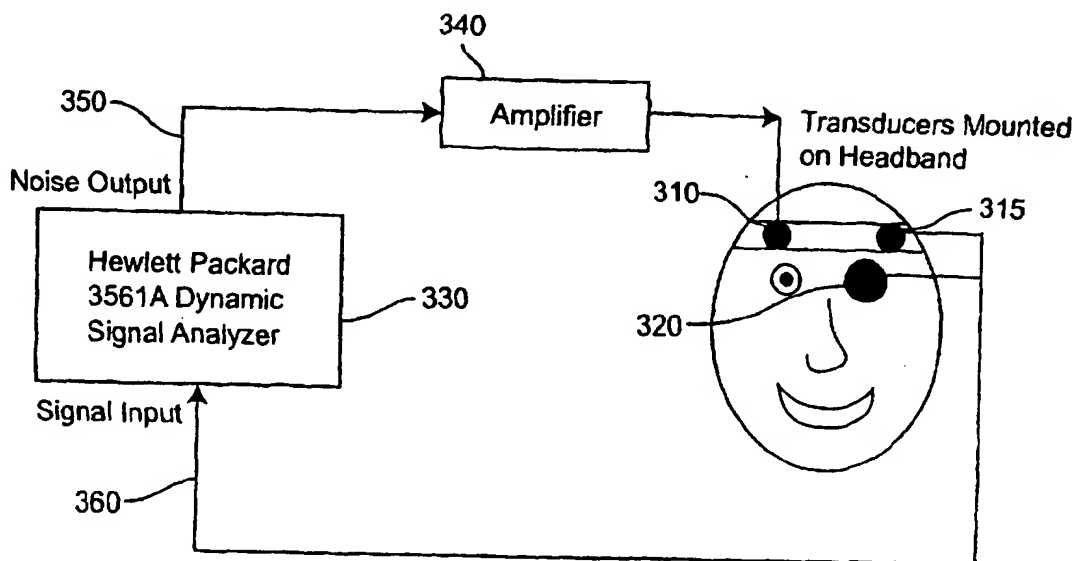
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(54) Title: MONITORING INTRA OCULAR AND INTRA CRANIAL PRESSURE



(57) Abstract: A method and apparatus for measuring acoustic energy applied to the head to detect increases in intra cranial pressure. Acoustic eye patches are applied to a patient's eye or eyelid, and an ultrasonic sweep generator applies an acoustic signal across the patient's skull, the signal being swept across a predetermined range. The eye patches have piezoelectric film sensors for measuring the acoustic signal. In one embodiment the predetermined range is in the ultrasonic band and an analyzer determines from the output of the sensors a resonant frequency and a damping of acoustic amplitude at said resonant frequency, there being a correlation between said damping and intra cranial pressure. In another embodiment the predetermined range includes a range less than 20 kHz and the analyzer determines retinal artery pulsations, with pressure being applied to the eye until the pulsations disappear, such pressure being a measure of intra cranial pressure.

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